

**(2013-1992 )**

**2014**



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اشرف الضلاعين

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ج.

## فهرس المحتويات

	:	
1	1.1	
2	2.1	
2	3.1	
3	4.1	
	:	
4	1.2	
5	2.2	
5	1.2.2	
6	2.2.2	
7	3.2	
7	1.3.2	
9	2.3.2	
10	3.3.2	
10	4.3.2	
10	( )	1.4.3.2

12		2.4.3.2
13		3.4.3.2
13		5.3.2
14		4.2
14		1.4.2
14		2.4.2
15		5.2
16		1.5.2
18		2.5.2
18		3.5.2
20		4.5.2
20		6.2
20		1.6.2
27		2.6.2
		:
30		1.3
30		1.1.3
33	-1992)	2.1.3
		(2013
33		2.3
33		1.2.3
34		2.2.3
36		3.2.3
38		4.2.3
39		5.2.3
42		6.2.3

	:
43	1.4
44	2.4
45	3.4
46	1.3.4
47	2.3.4
48	3.3.4
49	4.3.4
49	5.3.4
49	6.3.4
50	7.3.4
50	4.4
59	5.4
64	6.4
67	
72	

34	(2013-1992)	1
38	(2013-1992)	2
40	(2013-1992) (%)	3
42	(2013-1992)	4
46		5
51	(ADF) –	6
52		7
52		8
53	(Trace Test)	9
53	( Maximal eigenvalue)	10
56	FMOLS	11
57		12
58		13
60		14
60		15
61		16
61	( Maximal eigenvalue)	17
62	FMOLS	18
63		19



39	M2	1
54		2
59		3
63		4

## قائمة الملاحق

الرمز	عنوانه	الصفحة
أ		74
ب		76
ج		78

## الملخص

(2013-1992 )

2014

(2013-1992 )

(RM2)

(RM1)

(G)

(Inf)

(RGDP)

.(i)

(FMOLS)

:

(VECM)

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## **Abstract**

### **The impact of money supply on GDP and inflation in Jordan During the (1992-2013)**

**ASHRAF BRAKAT ALDLAEEN**

**Mutah University in 2014**

This study aims to investigate the effect of money supply on Gross Domestic Product(GDP) and the inflation in Jordan from 1992 to 2013. In order to achieve this aim, quarterly data of the variables of the study was used. The variables of the study are the real narrow money supply (RM1), the broadest money supply (RM2), the Real Gross domestic product (RGDP), Inflation (Inf), central expenses (G), and the re- discount rate (i)

In order to estimate the long-term relationship of models of the study the Fully Modified Ordinary Least Square(FMOLS) methodology was employed. To apply this methodology, co-integration test was used to determine the degree of integration of models of the study. Moreover, Vector Equilibrium Correction Model(VECM) was used through two main tools for analyses Variance Decomposition Analysis and the Impulse Response Function. Furthermore, the Causality was also tested using this model.

In the first model, The results' of the study showed that there is positive correlation between the inflation and changes in the narrow and broad money supply, real gross domestic product and the real interest rate. Where the second model showed that all of the money supply and government expenditure have positive and acceptable statistical effect on economic activity represented by real gross domestic product, where the results were consistent with economic theory and with the results of previous studies.

1.1

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(2013-1992)

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2.1

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.1

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(M2)

(M1)

.2

.(2013-1992)

3.1

(2013-1992)

.1

.2

.3

4.1

.1

.2

.3

## 1.2

.(2010 )

$$\frac{M}{P} = L(i, Y) \quad L_p < 0, L_y > 0$$

$Y^r$

$i$

$P$

$M$

$L$

:(Romer,1996)

$$P = \frac{M}{L(i, yr)}$$



(Variable Exogenous)

.  
( )  
( )  
(2008 ).

2.2  
: مفهوم السياسة النقدية  
1.2.2

( )

( )

(2012 ).

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(2004

(Kent)

(Prether,1958)

( )

.(2006

)

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2.2.2

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-1

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-2

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-3

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-4

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-5

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-6

( )

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.(2010

.(2004 )

(Selective Controls)

.

(Moral Persuasion)

(Directive)

.(2010 )

(Money Supply) : 3.2

1.3.2

money supply

.

.

.(1995 )

.(2008 )

.(Dowrik.2004)

)

.(2012

:

:( $M_1$ )

.1

(Money in Circulation)

(Demand Deposits)

:(2010 )

$$M_1 = C + DD$$

= C :

= DD

.(2004 )

(M<sub>2</sub>)

.2

(Time

(M<sub>1</sub>)

Deposits)

:(2010 )

$$M_2 = M_1 + TD$$

$$= TD$$

(M<sub>1</sub>)

.

.(2004 )

:

2.3.2

.

.(MB)

(mm)

(mm)

.(2004 )

)

.(

:(2012 )

: -1

(MB)

·  
:-2

·  
:-3

(Elasticity of Money Supply ) 3.3.2

(Elasticity Monetary )

·  
(2012 )

·  
: 4.3.2

·  
:

:( ) 1.4.3.2

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.

.( Bain and Howells,2003)

:

:

:

:

$$MV = PT \dots\dots\dots (1)$$

$$P = MV/T$$

T. P V M:

(T) (V)

.(Bain and Howells,2003)

:( ) :

:

$$MV = PY$$

V

P

Y

M

$$(K = 1/V)$$

$$(M = KPY)$$

.(Bain and Howells,2003)

:(Keynesian Theory)

2.4.3.2



.(2012 )

:(Modern Quantity Theory)

3.4.3.2

(Milton Freidman)

.(2012 )

( ) -1  
-2

(Bain and

-3

.Howells,2003 )

5.3.2

.

( )  
(2010 )

(Economic Growth)

4.2

.

1.4.2

(2001 ) GDP

(2009 )

"

( Bengoa and Sanchez, 2003)

.

.GDP

2.4.2

)

)

(

GDP

.(2008

)

( Inflation)

5.2

.(2006 )

.

.(2011 )

( Gandener Aekley)

(Grouther)

(Piguo)

.(2008 )  
(Freidman)

)

(2012

.(2011 )

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**1.5.2**

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) ( )

.(2011

( )

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.(2011

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(2011 ).

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.(2011 )

: 2.5.2

.(2004 )

: -1

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: -2

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: -3

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: -4

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(Open Market Operation ) :

(Open Market Pyrghase)

) .(2004

(Open Market Sale)  
(2008 ) .

(2010 )  
( Discount Rate ) :

(2001 . )

.(2008 )

(Required Reserve Ratio ) :

.(2011 )

.(Bain and Howells,2003)

4.5.2

( )

( )

.(2008 )



6.2

1.6.2

" : (2012 )

"2010-1990

. 2010 1990

(RM2)

(CPI)

(RGDP)

(VAR)

(ADF)

(Johansen co-integration Test)

(Granger causality Test )

(VAR)

:

" : (2012 )

"2011-1985

(2011-1985)

VAR

.

.

" (2012 )

.(2007-1992)

(2007-1992)

(RM1)

(RGDP)

(RM2)

(RI)

(RS)

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: (2011 )

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·  
": (2011 )  
"2010 -2003

· ( )  
(%97-95)

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·  
": (2010 )  
"

(2005-1970)

" : (2010 )  
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— —  
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) ( )  
(  
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": (2010 )  
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) ( )  
(

.(VECM)

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( )

VECM

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: " : (2008 )  
"

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·  
( Cointgrated VAR)  
(2007-1994)

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( )

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:

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" (2008 )

"

(M1,M2,M3)

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(Stepwise Multiple Regression on Analysis)

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( )

(M1,M2,M3)

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" : (2006 )

-1966

"1999

1999-1966

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” (2006 )

”

.(2003-1971)

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: (2004 )

·

( )

VAR

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## 2.6.2

: (Abdulrahman, Badreldin 2010)

"The Role of Monetary policy on Economic activity in Sudan:  
an Empirical investigation , 1990-2004 "

(1990-2004)

GDP and Price Study of : (Shrestha. 2010)  
on Nepal The Impact of Money Supply

(2009-1980)

in Jordan The Monetary : (Poddar2006)  
"Transmission Mechanism

(VAR)



" The : ( Tomsik and Viktorova,2006)  
 Relationship Between Money and Output In the Czech  
 Republic "

(VAR)

" Another : (Friedman and Kuttner ,1993)  
 Look At The Evidence on Money-In Come Causality "

( Johansen )

(M2)

1990 1960

"A Monetary : (Friedman and Schwartz,1963)  
 History of the United State 1867-1960 "

1960 1867

1929

"Money, In Come, and : (Sims, 1972 )  
Causality"

(RGDP) (M1) (M2)  
(G) (r) (CPI)

.2013-1992

(FMOLS)

.(Fully Modified Ordinary Least Square)

. (FMOLS)

1.3

:

1.1.3

%70

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.

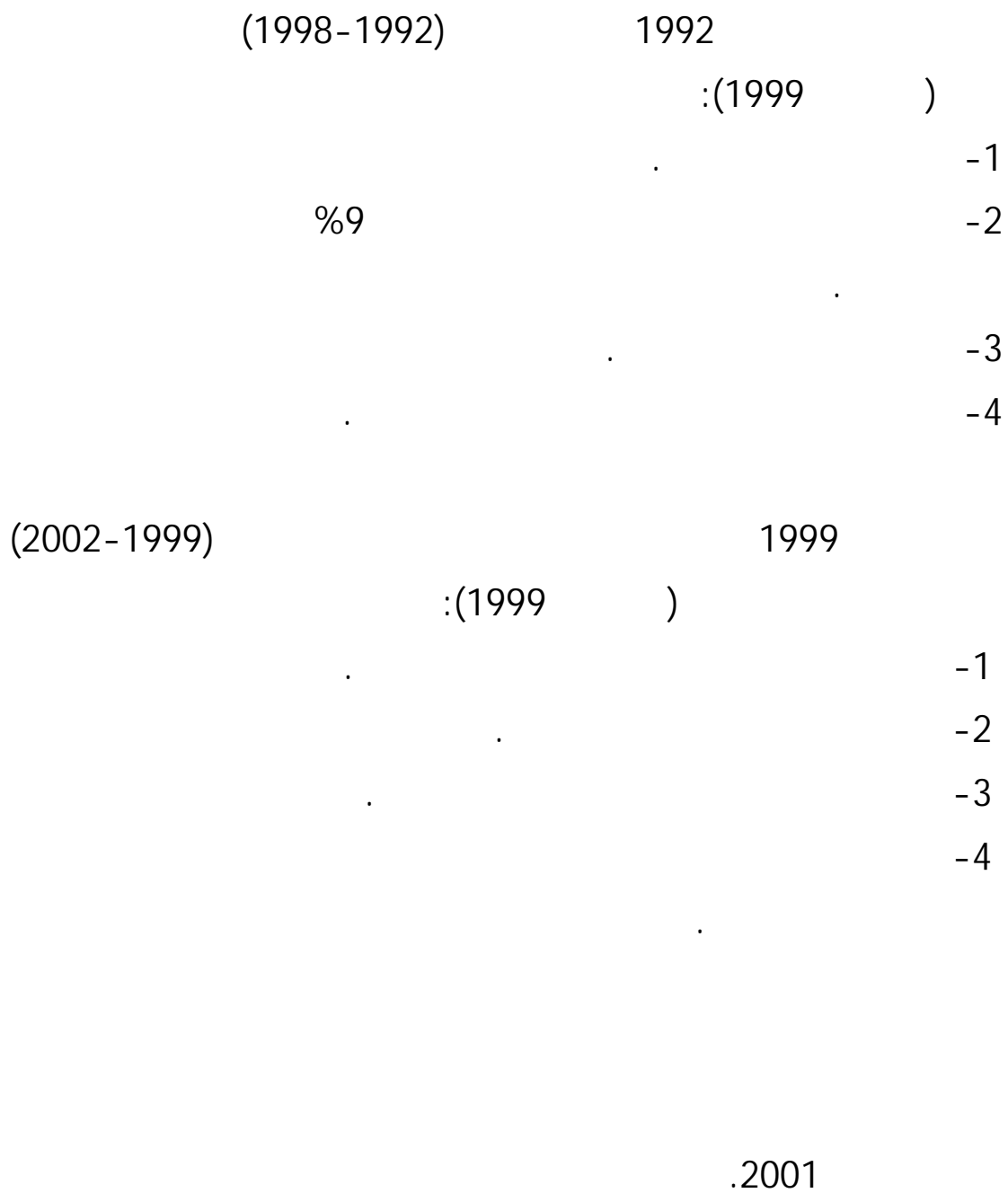
### 2.1.3

.

)

.(1997

	(1993-1989)	1989	
		:	
.	%7	1989	%14
1988		%23.7	-1
			-2
		.1993	%10
.%4			-3



: 2.3  
 (RGDP) 1.2.3  
 (1)  
 3130 (2013-1992)  
 (2013) 20676.6 (1992)  
 (2008) (%8.36)  
 (1999) (%22.66)  
 (2008) (%.2.22)  
 (%37.7)  
 .(2008 )  
 (1999)  
 1999  
 (%20)  
 .(2000 ).  
 (17546.6) 2013-1992  
 .  
 (%6.72) (2013-2012)  
 (2008-2000)  
 .(%10.88)  
 2012

(1)

(2013-1992)

m2				
(%)	M2			
		(%)		
12.79	4193.0	5.81	3130.0	1992
6.88	4481.8	6.15	3335.4	1993
8.02	4841.5	9.66	3692.1	1994
6.57	5159.8	8.14	4019.3	1995
0.30	5175.3	2.99	4143.5	1996
7.75	5576.6	6.91	4451.3	1997
8.06	6026.3	5.69	4720.2	1998
11.96	6747.6	2.22	4864.9	1999
10.18	7434.7	5.60	5153.6	2000
5.80	7866.1	5.78	5470.0	2001
7.03	8419.1	6.48	5849.4	2002
12.43	9465.7	7.17	6301.3	2003
11.68	10571.4	12.42	7195.0	2004
16.95	12364.	9.65	7963.6	2005
14.11	14109.7	14.94	9362.783	2006
10.61	15606.8	13.34	10805.13	2007
17.28	18304.2	22.66	13971.2	2008
9.33	20013.3	7.13	15044.51	2009
11.45	22306.7	8.36	16417.19	2010
8.12	24118.9	8.73	17987.66	2011
3.42	24945.1	6.79	19298.19	2012
9.70	27363.4	6.66	20676.6	2013

(2013-1992)

:

:

2.2.3

(M1)

(M1) (M2)

M2 (1)

4193 (2013-1992)

(2013) 27363.4 (1992)

(M2) (%9.6)

(%0.30) (1996-1992)

(1996)

(%9)

(1993)

.(2003 )

(1996)

(2001-1999)

(2004-2002)



)

.(2003 2004

2012-2010

2008

) 2010

2009

.(2012

.

.

.(2011 )

.

: 3.2.3

.

(2)

(2013-1992)

(2008) (%4)

(%12.25)

( )

.(2008 )

(%-.66) (2009)

(2008)

.

.(2009 )

(2013-2011)

(%5.19)

(2)  
(2013-1992)

(%)		(%)	
2.29	2003	3.81	1992
2.59	2004	4.31	1993
3.35	2005	2.24	1994
5.89	2006	2.28	1995
4.49	2007	6.13	1996
12.25	2008	2.91	1997
-0.66	2009	3.00	1998
4.75	2010	0.58	1999
4.22	2011	0.67	2000
4.54	2012	1.74	2001
5.19	2013	1.79	2002

(2013-2012) :

4.2.3

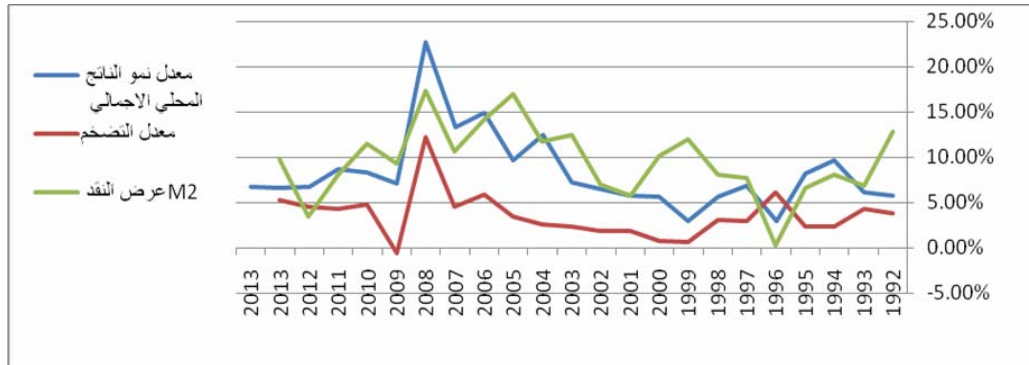
(1) M2  
(2008)

(1)  
(2003-1998) (2008)

M2

(1)

(1996)



(1)

M2

:

:

5.2.3

		(3)	
	(%8.5)		(1996-1992)
	(1997)		
	(%7.75)		
(1998)			
		(1999)	(%9.0)
	(2003)	(%2.5)	
(2006)	(%7.5)	(2004)	(%3.75)
	(2013)	(%4.50)	(2011)
	(3)		
	(2013-1992)	(%)	
<hr/>			
2.500	2003	8.500	1992
3.750	2004	8.500	1993
6.500	2005	8.500	1994
7.500	2006	8.500	1995
7.000	2007	8.500	1996
6.250	2008	7.750	1997
4.750	2009	9.000	1998
4.250	2010	8.000	1999
4.500	2011	6.500	2000
4.500	2012	5.000	2001
4.500	2013	4.500	2002
<hr/>			
		(2013-2012)	:

### 6.2.3 النفقات العامة للحكومة المركزية :

(2012)					
(4)					
(%8.62)					
	(1372.5)	(1992)			
		(7364)	(2013)		
			(5991.5)		
			(2008)		
	(% -4.48)	(2010)			
		(%33.3)			
			(%3.5)		
	(%-2.84)	(1999)			
			(2003)(%17.26)		
		(1994)			
(		)			

(4)

(2013-1992)

(%)		
11.19	1372.5	1992
2.84	1411.6	1993
12.48	1587.8	1994
6.68	1693.9	1995
5.64	1789.6	1996
9.07	1952.0	1997
6.95	2087.7	1998
-2.30	2039.5	1999
7.23	2187.1	2000
5.90	2316.3	2001
3.44	2396.2	2002
17.26	2809.8	2003
13.19	3180.5	2004
11.30	3539.9	2005
10.52	3912.3	2006
17.22	4586.0	2007
18.42	5431.0	2008
10.03	5975.9	2009
-4.48	5708.0	2010
1.02	6796.6	2011
0.96	6862.0	2012
7.31	7364.0	2013
(2013-1992)		:

## 1.4

### Fully Modified Ordinary Least Square (FMOLS) (Co-integration)

:

:

$$\text{Inf} = f(\text{RM1}, \text{RM2}, \text{RGDP}, i)$$

:

$$\text{RGDP} = f(\text{RM2}, \text{Inf}, G)$$

:

: Inf

: RM2

: RGDP

: G



2.4

(88) 2013

1992

:

(RM1)

.1

(RM2)

(M1)

.2

:(i)

.3

:

.4

: .5

Consumer

2006

Price Index (CPI)

.

: .6

.

3.4

Time Series Analysis

(5)

(Co-Integration)

Fully Modified Ordinary Least

.(VECM)

Square (FMOLS)

.

(5)

	5	1
	6	2
VECM	7	3
	8	4
		9

(Unit Root Test)

1.3.4

( Stationary)

(Superiors Regressions)

$R^2$  (t,f)

OLS

-

ADF

$$Y_{t-i} + \epsilon_i \dots \dots \dots (1) \sum_{i=1}^m \alpha_i \Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} +$$

m

$\epsilon_i$  t

$Y_t$

)

.(2007

$$t \quad (ADF) \quad - \quad t \quad ( \quad )$$

$$(H_0: B=0)$$

$$.(2011 \quad )$$

$$(Co-integration Test) \quad 2.3.4$$

(Johansen:1988,1991 ; Johansen and

: Juselius: 1990)

(Trace test - trace) :

(q)

: (q = r)

$$\lambda_{trace}(\mathbf{r}) = -T \sum_{i=r+1}^p \ln(1 - \hat{\lambda}_i) \quad \dots\dots\dots (2)$$

.(p-r) (eigenvectors) (r+1, ....n)

.(r)

(Maximal eigenvalue) :

:

$$\lambda_{max}(r, r+1) = -T \ln(1 - \hat{\lambda}_{r+1}) \quad \dots\dots\dots (3)$$

$$\lambda_{max}(r, r+1) = -T \ln(1 - \hat{\lambda}_{r+1})$$

.(2004

Fully Modified

3.3.4

.Ordinary Least Square (FMOLS)

(1995)

(1990)

Asymptotically Normal

(OLS)

$Y_t$

:

$$Y_t = \beta_0 + \beta_1 x_1 + \epsilon_t = \beta' Z_t + \epsilon_t \dots\dots\dots (4)$$

(Bum and Jeon, 2006)

OLS

#### 4.3.4 نموذج متجه تصحيح الخطأ (Vector Error Correction Model)

(Engle and Granger:1987)

(VECM)

.

#### 5.3.4 اختبار السببية (Causality Test)

Error Correction Term (ECT)

(t)

.

(Variance Decomposition)

6.3.4

(Cholaski Decomposition)

.(2005 )

Impulse Response Function )

7.3.4  
(Test

(Shocks)

:

4.4  
1

(6)

(T)

%5

(RG , RGDP)

(I , INF , RM1 , RM2)

(%1 %10)

(6)

(ADF) -

	t	ADF	t	ADF	
**	-1.945199	-2.347980	-1.944915	-0.495598	I
***	-1.614204	-1.627657	-1.944915	2.507730	RGDP
**	-1.945199	-3.731818	-1.945139	-0.458566	INF
**	-1.944811	-1.931216	-1.944915	1.559493	RM1
**	-1.944713	-3.463686	-1.944915	1.146658	RM2
*	-2.896779	-13.37126	-1.944915	2.373885	RG

.2

AIC (7)

SC 4



(7)

LR	FPE	AIC	SC	HQ	
NA	34785.05	24.64632	24.79629	24.70640	0
757.7036	2.037680	14.89973	15.79952*	15.26022	1
56.13044	1.693699	14.70720	16.35681	15.36808	2
69.55312	1.077990	14.23609	16.63553	15.19738	3
97.32865*	0.393349*	13.19092*	16.34019	14.45261*	4
20.95784	0.530582	13.42840	17.32749	14.99050	5
24.16377	0.664222	13.55790	18.20682	15.42040	6
32.48435	0.675484	13.43536	18.83410	15.59826	7
24.65570	0.810348	13.41944	19.56801	15.88274	8
22.06011	1.031200	13.38386	20.28225	16.14757	9

\*فترة التباطؤ الزمني التي تم اختيارها من طرفا لاختبار المعني.  
LR:نسبة الإمكان. FPE: معيار خطأ التنبؤ النهائي. AIC: معيار أكايك. SC: معيار شوارتز. HQ: معيار هانان -كوين.

(8)

(8)

	INF	RM1	RM2	RGDP	I	Joint
	3.019745	81.17900	88.99479	34.79614	5.481095	318.6087
Lag 1	[ 0.696942]	[ 4.44e-16]	[ 0.000000]	[ 1.65e-06]	[ 0.360023]	[ 0.000000]
	5.075410	3.229654	2.564056	24.56573	7.117157	71.74005
Lag 2	[ 0.406747]	[ 0.664628]	[ 0.766819]	[ 0.000169]	[ 0.212072]	[ 2.12e-06]

(Trace statistic) (9)

%1

(9)

**(Trace Test)**

	Eigen Value	Trace statistic	Critical Value 5%	Prob**
None *	0.444934	89.81355	69.81889	0.0006
At most 1	0.204931	39.77680	47.85613	0.2306
At most 2	0.143292	20.28409	29.79707	0.4038
At most 3	0.079454	7.138161	15.49471	0.5616
At most 4	0.001189	0.101153	3.841466	0.7504

(10)

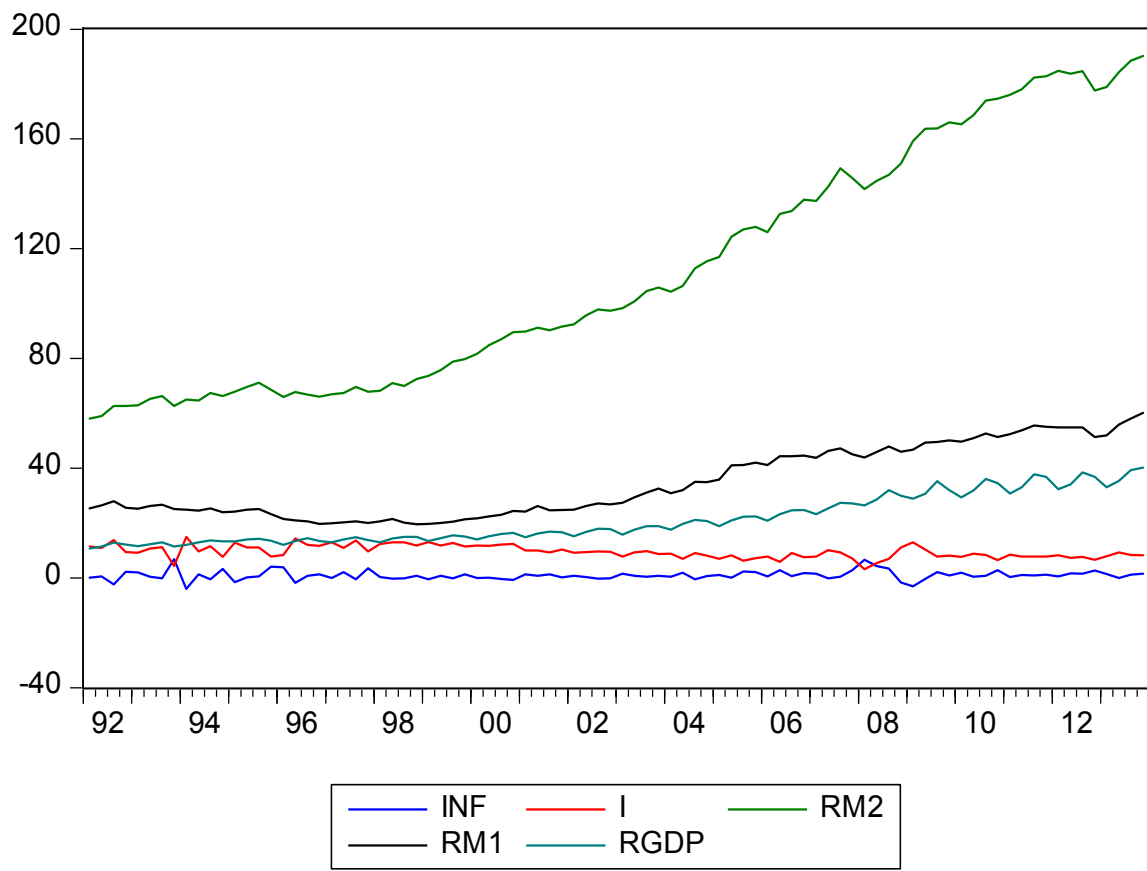
(Maximal eigenvalue)

(10)

**(Maximal eigenvalue)**

	Eigen Value	Maximal eigenvalue	Critical Value 5%	Prob**
None *	0.444934	50.03675	33.87687	0.0003
At most 1	0.204931	19.49271	27.58434	0.3773
At most 2	0.143292	13.14593	21.13162	0.4389
At most 3	0.079454	7.037008	14.26460	0.4848
At most 4	0.001189	0.101153	3.841466	0.7504

(2)



(2)

(FMOLS) .4

(6)

(10)

(9)

.(FMOLS)

(11)

(FMOLS)

%.1

2.12

(D-W)

%84

(R<sup>2</sup>)

	(M1)	
(M2)		%0.09
		%0.06
.		%0.31
		%0.08

.

—

—

.

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(11)  
FMOLS

(Prob. )	(t-Statistic)t	(Std. Error)	(Coefficient)	(Variable)
0.0185	-2.402757	0.038001	0.091307	RM1
0.0004	-3.700376	0.015422	0.057067	RM2
0.0000	5.283707	0.064320	0.309847	RGDP
0.0000	-13.53610	0.057413	0.077148	I
0.0000	12.83679	0.831853	10.67832	C
0.839962R-squared		0.832155Adjusted R-squared	Durbin-Watson stat 2.125763	

.(Error Correction Model) .5

Variance )

Impulse )

(Decomposition  
(Response Function

: -4

(VECM)

t

t

.(Apergis and Payne, 2009)

(12)

t

0.95

.(m2)

(12)

	D(INF)	D(RM1)	D(RM2)	D(RGDP)	D(I)
Error Correction:	-0.946660	0.164669	-0.321480	0.404255	0.147496
Standard Error	(0.13124)	(0.23499)	(0.13645)	(0.12586)	0.445941
T- statistic	[-7.21302]	[ 0.70075]	[-2.35597]	[ 3.21185]	(0.49099)

: -5

(13)

%1.23 (m2)

%6.6

%4.64

%3.8

%3

%8.7

%5.6

(13)

Period	INF	RM2	RM1	RGDP	I
1	100.0000	0.000000	0.000000	0.000000	0.000000
2	93.47847	1.232287	3.773052	0.205314	1.310875
3	91.43636	1.799881	4.008309	1.387789	1.367663
4	87.65534	2.158597	3.624876	4.344515	2.216676
5	84.50601	3.979367	3.541697	5.584306	2.388620
6	83.66171	4.643001	3.648487	5.576747	2.470059
7	82.70852	5.271268	3.804100	5.752557	2.463557
8	80.48777	5.499576	3.877220	7.420624	2.714814
9	78.60489	5.963327	3.868853	8.586422	2.976505
10	77.67752	6.571693	3.948330	8.724070	3.078383

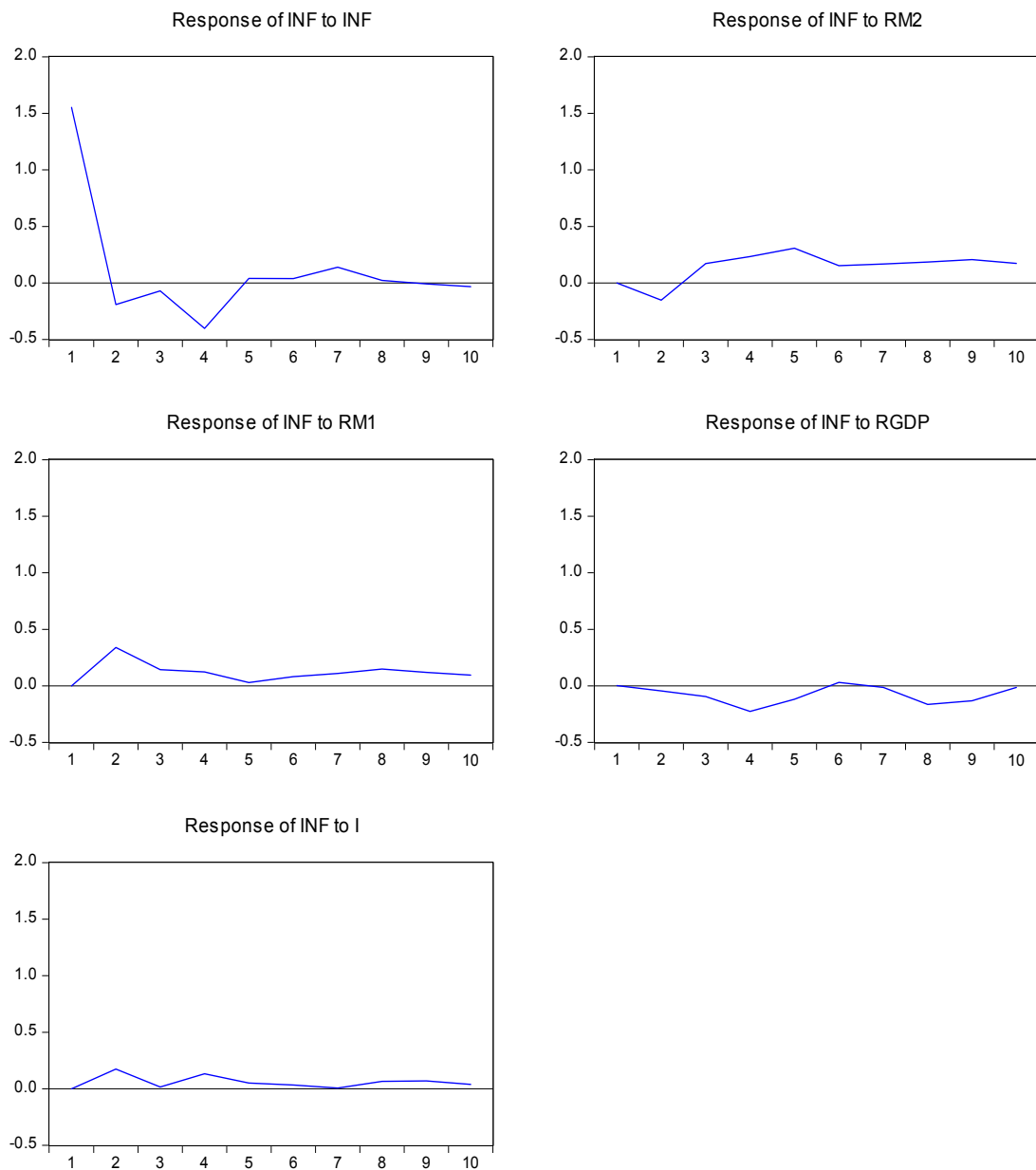
-6

(3)

(m1) (m2)

.(i)

# Response to Cholesky One S.D. Innovations



(3)

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5.4

.1

(6)



(AIC)

(14)

(SC)

(14)

LR	FPE	AIC	SC	HQ	
NA	37490.58	21.88335	22.00332	21.93141	0
484.5929	80.56208	15.73986	16.33972	15.98018	1
23.90908	86.12754	15.80336	16.88311	16.23594	2
94.80220	30.95707	14.77203	16.33167	15.39687	3
70.15644	15.20107	14.04554	16.08506*	14.86263	4
36.49935	12.45497*	13.82130	16.34071	14.83066*	5
8.442303	16.58502	14.07003	17.06933	15.27164	6
23.63120	16.35742	14.00247	17.48165	15.39634	7
27.13365*	14.64086	13.81767*	17.77674	15.40379	8

\*فترة التباطؤ الزمني التي تم اختيارها من طرفاً لاختبار المعنى.

LR:نسبة الإمكان. FPE: معيار خطأ التنبؤ النهائي. AIC: معيار أكايك. SC: معيار شوارتز. HQ: معيار هانان -كوين.

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(15).

(15)

	RGDP	INF	RM2	RG	Joint
	38.21052	3.904988	95.65503	23.62624	192.6743
Lag 1	[ 1.01e-07]	[ 0.419017]	[ 0.000000]	[ 9.49e-05]	[ 0.000000]
	10.69816	4.592354	2.697353	8.006841	27.14763
Lag 2	[ 0.030174]	[ 0.331737]	[ 0.609678]	[ 0.091328]	[ 0.039871]

.2

(Tracetatistic)

( )

Eigen )

(16) (Value  
(16)  
(Trace Test)

	Eigen Value	Trace statistic	Critical Value 5%	Prob**
None *	0.468908	127.3458	69.81889	0.0000
At most 1*	0.429841	74.18896	47.85613	0.0000
At most 2	0.196781	26.99440	29.79707	0.1018
At most 3	0.090957	8.587628	15.49471	0.4049
At most 4	0.006847	0.577166	3.841466	0.4474

(17)  
(Maximal eigenvalue)

	Eigen Value	Maximal eigenvalue	Critical Value 5%	Prob**
None *	0.468908	53.15682	33.87687	0.0001
At most 1*	0.429841	47.19456	27.58434	0.0001
At most 2	0.196781	18.40678	21.13162	0.1154
At most 3	0.090957	8.010462	14.26460	0.3777
At most 4	0.006847	0.577166	3.841466	0.4474

(FMOLS) .3

.(FMOLS)

(18) (FMOLS)

%5

(D-W) %96 (R<sup>2</sup>) .  
 1.97

1

%0.17

%0.26 1

%.09-

(18)

FMOLS

(Prob. )	(t-Statistic)t	(Std. Error)	(Coefficient)	(Variable)
0.4415	0.773406	0.129150	-0.099885	INF
0.0000	18.91611	0.009356	0.176974	RM2
0.0443	2.042687	0.128095	0.261658	RG
0.2159	-1.247181	0.646422	-0.806205	C
R-squared 0.963663		Adjusted R-Squared 0.962334		Durbin-Watson 1.970429

: .4

(19)

t

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.(RG)

(19)

	D(RGDP)	D(INF)	D(RM2)	D(RG)
Error Correction:	-0.056906	0.046629	0.010212	-0.253697
Standard Error	(0.04151)	(0.07862)	(0.05590)	(0.10859)
T- statistic	[-1.37094]	[ 0.59308]	[ 0.18267]	[-2.33623]

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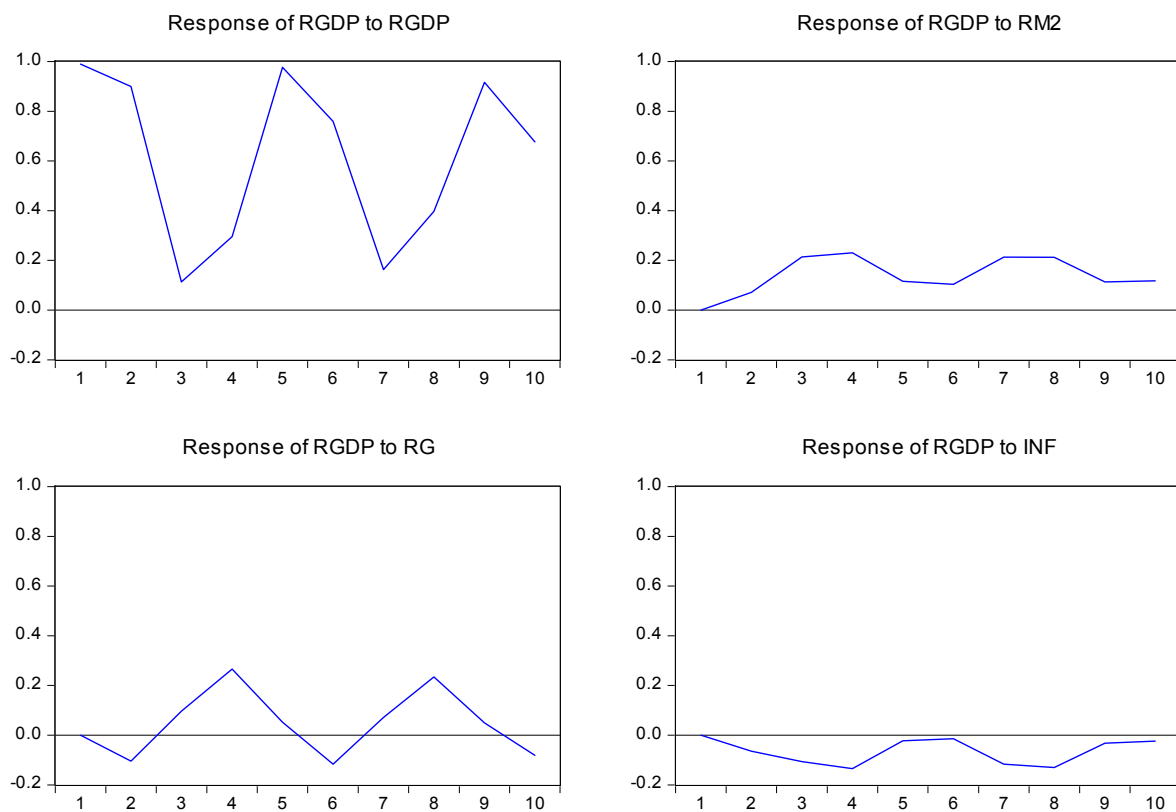
(4)

(m2)

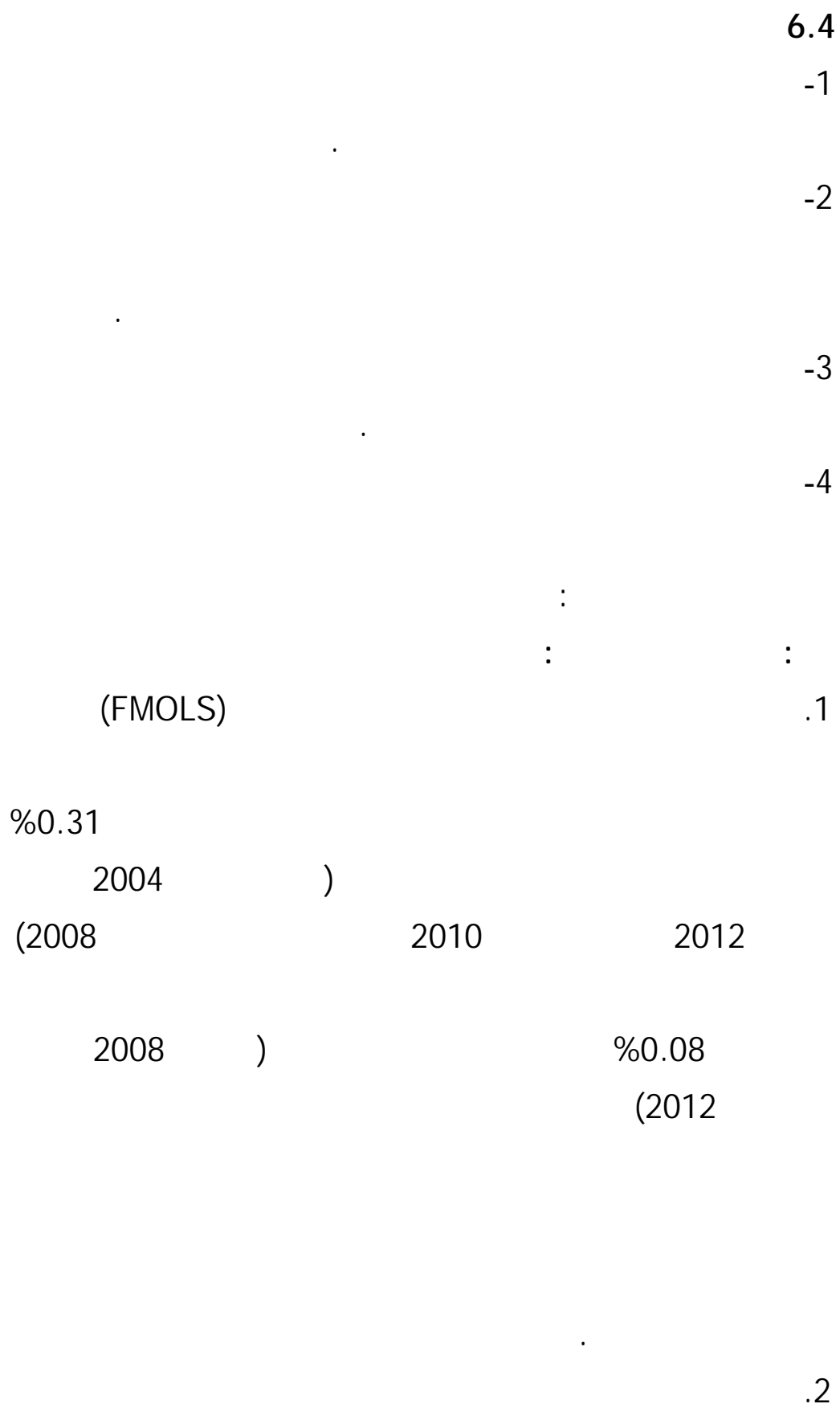
.(RG)

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Response to Cholesky One S.D. Innovations



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(m2)

2006 2004 )

(Poddar2006 Shrestha2010

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(m2)

%3.8 . %6.6

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%8.7

.(2012 2012 2008 )

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(m1) (m2)

.(i)

.(2008 2012 )

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(FMOLS) .1

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أ- المراجع باللغة العربية :

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## مكونات عرض النقود في الاقتصاد الأردني

عرض النقد (2ع) Money Supply (M2)	شبه النقد Quasi-Money							عرض النقد (1ع) Money Supply (M1)	ودائع تحت الطلب بالدينار الاردني Demand Deposits in Jordan Dinar			النقد المتداول Currency in Circulation	نهاية الفترة End of Period			
	المجموع Total	ودائع التوفير ولاجل ( بالدينار والعملات الاجنبية) Time and Saving Deposits ( in JD& Foreign Currencies)			ودائع تحت الطلب بالعملات الاجنبية Demand Deposits in Foreign Currencies											
		مؤسسات مالية Financial Institutions	مؤسسات عامة Public Entities	القطاع الخاص (مقيم) Private Sector (Resident)	مؤسسات مالية Financial Institutions	مؤسسات عامة Public Entities	القطاع الخاص (مقيم) Private Sector (Resident)									
4481.8	2751.7	35.2	297.2	2327.1	0.6	6.1	85.5	1730.1	6.0	61.2	615.0	1047.9	(1)1993			
4841.5	3095.3	32.7	378.2	2579.6	2.3	12.6	89.9	1746.2	5.3	37.6	630.7	1072.6	1994			
5159.8	3414.2	37.3	444.8	2818.0	0.8	14.2	99.1	1745.6	25.6	48.2	620.9	1050.9	1995			
5175.3	3636.1	46.4	508.2	2976.1	1.6	9.8	94	1539.2	4.6	33.3	549.1	952.2	1996			
5576.6	3934.2	52.0	532.1	3231.8	1.2	12.3	104.8	1642.4	5.1	55.8	593.9	987.6	1997			
6003.2	4378.0	128.5	696.6	3404.1	2.4	10.4	136	1625.2	7.1	65.2	600.1	952.8	Old	1998		
6026.3	4412.4	29.6	762.1	3472.8	1.3	8.2	138.4	1613.9	1.2	55.5	604.4	952.8	New (2)	1998		
6747.6	4970.5	36.4	938.8	3835.1	1.4	10.9	147.9	1777.1	3.3	58.1	609.1	1106.6	1999			
7434.7	5408.0	54.4	983.7	4193.9	0.7	15.1	160.2	2026.7	7.3	58.6	720.9	1239.9	2000			
7866.1	5746.4	68.5	955.8	4472.5	1.0	17.5	231.1	2119.7	7.9	103.7	805.7	1202.4	2001			
8419.1	6102.9	63.9	850.1	4854.2	1.4	12.0	321.3	2316.2	7.3	137.0	919.2	1252.7	2002			
9465.7	6545.9	77.9	723.5	5262.5	1.4	39.4	441.2	2919.8	10.3	196.4	1269.4	1443.7	2003			
10571.4	7378.5	90.7	758.2	5892.7	1.1	67.9	567.9	3192.9	11.4	130.0	1637.1	1414.4	2004			
12364.0	8302.7	67.4	734.0	6879.3	1.5	50.7	569.8	4061.3	12.2	104.3	2287.6	1657.2	2005			
14109.7	9543.2	84.1	591.3	8182.9	1.6	35.0	648.3	4566.5	11.0	92.6	2435.5	2027.4	2006			
15606.8	10773.7	85.8	709.2	9228.2	4.4	48.8	697.3	4833.1	12.2	75.0	2573.5	2172.4	2007			
18304.2	12731.2	85.7	870.9	10692.4	32.6	222.6	827	5573.0	21.2	114.3	2772.7	2664.8	2008			
20013.3	13973.8	116.1	737.6	11963.2	25.3	72.2	1059.4	6039.5	19.9	106.1	3234.0	2679.5	2009			
22306.7	15756.7	144.9	793.5	13438.9	40.6	33.6	1305.2	6550.0	21.9	84.8	3599.7	2843.6	2010			
24118.9	16847.4	189.0	819.9	14263.3	71.8	19.5	1483.9	7271.5	22.6	71.0	4158.6	3019.3	2011			
24945.1	17734.0	205.5	947.9	14273.0	37.6	23.5	2246.5	7211.1	35.5	93.1	3867.5	3215.0	2012			

المصدر البنك المركزي

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### العوامل المؤثرة في عرض النقد

JD Million

مليون دينار

ودائع التوفير ولاحل	ودائع تحت الطلب	النقد المتداول	التغير في عرض النقد (٢٤)	صافي العوامل الاخرى (الزيادة -)	راس المال والاحتياطات والمخصصات (الزيادة -) Capital, Reserves and Allowances (Increase -)	صافي الارصدة الاجنبية Net Foreign Assets	الائتمان المحلي				نهاية الفترة
							الديون على القطاع الخاص (مقيم)	الديون على البلديات والمؤسسات العامة	الديون على الحكومة (صافي)	المجموع	
Saving & Time Deposits	Demand Deposits	Currency in Circulation	Change in Money Supply (M2)	Other Items (Net) (Increase -)	Reserves and Allowances (Increase -)	Net Foreign Assets	Claims on Private Sector (Resident)	Claims on Municipalities and Public Entities	Claims on Government (Net)	Total	End of Period
359.8	104.2	11.5	475.5	23.5	16.8	33.3	234.6	3.4	163.9	401.9	1992
266.8	77.4	44.0	388.2	51.9	-157.0	-31.0	392.0	45.2	87.1	524.3	1993
331.0	12.6	-8.6	24.7	359.7	-161.6	17.0	453.7	-12.2	-118.5	181.3	(1)1994
309.6	9.3	21.1	-21.7	318.3	-225.0	10.1	430.2	-17.3	-108.8	229.1	1995
230.6	-8.7	-107.7	-98.7	15.5	-94.4	-2.5	162.8	-66.8	11.0	5.4	1996
285.2	12.9	67.8	35.4	401.3	-145.2	-2.8	172.4	-44.2	176.1	245.0	1997
413.3	30.5	17.6	-34.8	426.6	-369.7	-2.7	277.4	410.3	379.2	-267.9	Old (2)1998
545.8	12.3	9.4	153.8	721.3	-220.6	7.8	192.5	113.0	204.8	423.8	1999
421.7	15.8	116.3	133.3	687.1	-268.5	1.5	179.8	-74.4	425.3	423.4	2000
264.8	73.6	130.5	-37.5	431.4	-357.5	-1.2	483.7	167.5	336.6	-197.7	2001
271.4	85.1	146.2	50.3	553.0	-100.4	-4.3	152.2	77.8	-193.0	620.7	2002
295.7	147.3	412.6	191.0	1046.6	-151.4	-1.0	167.7	-42.5	129.5	944.3	2003
677.7	154.9	302.4	-29.3	1172.7	-370.9	21.1	869.5	268.7	256.2	128.1	2004
939.1	-14.9	625.6	242.8	1770.0	-684.3	58.1	1783.7	444.1	117.8	50.6	2005
1177.6	62.9	135.0	370.2	1747.0	-1253.3	61.9	1877.7	-348.0	336.4	1072.3	2006
1164.9	65.6	121.6	145.0	1497.1	-1218.0	62.5	1456.9	737.2	-264.2	722.7	2007
1625.8	331.7	247.5	492.4	2697.4	-173.1	58.1	1530.2	2047.5	-1435.2	669.9	2008
1167.9	74.7	451.8	14.7	1709.1	-461.1	-97.3	159.9	327.7	-653.2	2433.1	2009
1560.4	222.5	346.4	164.1	2293.4	-130.9	-15.0	919.3	322.9	478.8	718.3	2010
894.9	195.8	545.8	175.7	1812.2	-548.6	-18.2	1312.3	1791.5	8.3	-733.1	2011
154.2	732.4	-256.1	195.7	826.2	-230.8	-0.4	1008.7	2736.9	403.8	-3092.0	2012

(1) : Effective December 1993, data were reclassified according to new definitions of monetary sectors.

(2) : Public sector accounts were reclassified.

(١) : تم إعادة تصنيف البيانات اعتباراً من كانون أول ١٩٩٣ بموجب تعريف جديدة للقطاعات النقدية.

(٢) : تم إعادة تصنيف حسابات مؤسسات القطاع العام.

المصدر: البنك المركزي



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## هيكل أسعار الفائدة

Percentages

نسب مئوية

سعر فائدة الاقراض بين البنوك Inter- Bank Rate	اسعار الفائدة لدى البنوك المرخصة Interest Rates of Licensed Banks						اسعار الفائدة على أدوات البنك المركزي Interest Rates on Central Bank Instruments				السنة Year
	اسعار الفائدة على الودائع <sup>(1)</sup> Deposits Interest Rates <sup>(2)</sup>			اسعار الفائدة على التسهيلات الائتمانية <sup>(1)</sup> Interest Rates on Credit Facilities <sup>(1)</sup>			اتفاقيات اعادة الشراء	اسعار الفائدة على شهادات الایداع Interest Rates on Certificates of Deposit		سعر اعادة الخصم Re-discount Rate	
	لأجل	توفير	تحت الطلب	كمبيالات واسناد مخصومه Discounted Bills & Bonds	قروض وسلف Loans & Advances	جاري مدين Overdrafts		ستة أشهر	ثلاثة اشهر		
	Time	Saving	Demand				Repo	Six Months	Three Months		
-	6.950	5.010	0.740	11.640	10.200	11.680	-	-	-	8.500	1992
-	6.870	5.140	0.880	11.110	10.270	11.030	-	4.100	3.250	8.500	1993
-	7.330	4.960	1.150	11.370	10.420	10.870	8.438	7.940	7.750	8.500	1994
-	7.970	5.010	1.040	11.680	10.740	11.800	9.500	9.000	8.750	8.500	1995
8.340	8.850	5.220	1.190	12.660	11.600	12.930	10.000	9.500	9.250	8.500	1996
2.500	8.910	4.790	1.270	13.440	12.550	13.120	9.000	6.500	6.250	7.750	1997
5.830	8.330	4.560	1.350	13.970	12.890	12.490	11.500	9.550	9.450	9.000	1998
1.030	7.890	4.190	1.460	13.370	12.670	12.660	9.250	8.250	6.000	8.000	1999
5.750	6.550	3.760	1.200	12.810	11.380	11.600	7.500	6.050	6.000	6.500	2000
3.880	5.190	2.910	1.060	11.880	10.450	10.420	6.000	4.000	3.900	5.000	2001
2.880	3.970	1.840	0.910	10.950	9.850	9.350	5.500	3.450	3.000	4.500	2002
2.130	2.750	0.880	0.500	10.240	8.920	9.430	3.500	2.150	2.100	2.500	2003
2.805	2.490	0.730	0.380	8.980	7.590	8.790	4.750	3.200	2.850	3.750	2004
4.629	3.520	0.830	0.470	7.920	8.100	9.260	7.500	6.950	6.200	6.500	2005
6.495	5.130	0.990	0.870	8.720	8.560	9.230	8.500	6.862	6.700	7.500	2006
5.147	5.560	1.100	0.940	9.450	8.860	9.830	6.750	5.867	5.750	7.000	2007
4.649	5.660	1.040	1.010	8.890	9.480	9.310	6.000	5.936	5.641	6.250	2008
2.645	4.230	0.840	0.670	9.170	9.070	9.030	4.500	5.936	5.641	4.750	2009
2.150	3.400	0.770	0.440	9.410	9.010	9.120	4.000	5.936	5.641	4.250	2010
2.917	3.460	0.700	0.430	9.340	8.670	8.800	4.250	5.936	5.641	4.500	2011
4.309	4.190	0.760	0.420	9.590	8.950	9.280	4.750	5.936	5.641	5.000	2012

(1) : Represents interest rates weighted by credit facilities volume for the period 1990-2004.

(1) : يمثل سعر فائدة مرجح بحجم التسهيلات للفترة ١٩٩٠-٢٠٠٤.

(2) : Represents interest rates weighted by deposits volume for the period 1990-2004.

(2) : يمثل سعر فائدة مرجح بحجم الودائع للفترة ١٩٩٠-٢٠٠٤.

المصدر : البنك المركزي